### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 99.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-017186 Address: 333 Burma Road **Date Inspected:** 25-Sep-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Mr. Geng Wei & Mr. Wang Jie No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG** Bike Path and Segment

### **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Bay 14

This QA inspector observed ZPMC qualified welding personnel identified as 045270 perform Submerged Arc Welding (SAW) Welding on deck plate splice joint of OBG Segment 13AW, weld joint identified as SEG3013-005. ZPMC QC is identified as Mr. Xia Chun Hui. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2221-B-L2c-S-2.

This QA inspector observed ZPMC qualified welding personnel identified as 045270 perform SAW Welding on deck plate splice joint of OBG Segment 13CW, weld joint identified as SEG3015-006. ZPMC QC is identified as Mr. Xia Chun Hui. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2221-B-L2c-S-2.

This QA inspector observed ZPMC qualified welding personnel identified as 044771 perform SAW Welding on 13BE to 13CE butt joint of OBG Segment, weld joint identified as OBE13C-001. ZPMC QC is identified as Mr. Xia Chun Hui. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2221-B-L2c-S-2.

This QA inspector observed ZPMC qualified welding personnel identified as 044795 perform Flux Core Arc

## WELDING INSPECTION REPORT

(Continued Page 2 of 4)

Welding (FCAW) welding on vertical plate of OBG Segment 13AE, weld joint identified as VP3005-001-006. ZPMC QC is identified as Mr. Li Ming Yang. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS -B-T-2232-Tc-U4b-F.

This QA inspector observed ZPMC qualified welding personnel identified as 067876 perform FCAW welding on vertical plate of OBG Segment 13AE, weld joint identified as VP3005-001-020. ZPMC QC is identified as Mr. Li Ming Yang. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS -B-T-2232-Tc-U4b-F.

This QA inspector observed ZPMC qualified welding personnel identified as 066439 perform FCAW welding on vertical plate of OBG Segment 13CE, weld joint identified as VP3007-001-063. ZPMC QC is identified as Mr. Li Ming Yang. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS -B-T-2232-Tc-U4b-F.

This QA inspector observed ZPMC qualified welding personnel identified as 067079 perform FCAW welding on vertical plate of OBG Segment 13CE, weld joint identified as VP3007-001-063. ZPMC QC is identified as Mr. Li Ming Yang. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS -B-T-2232-Tc-U4b-F.

This QA inspector observed ZPMC qualified welding personnel identified as 044774 perform FCAW welding on vertical plate of OBG Segment 14E, weld joint identified as VP3016-001-008. ZPMC QC is identified as Mr. Li Ming Yang. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS -B-T-2232-Tc-U4b-F.

This QA inspector observed ZPMC qualified welding personnel identified as 045196 perform Shielded Metal Arc Welding (SMAW) welding on OBG Segment 13AW Bottom plate temporary attachment areas, the bottom plates are identified as BP3072, BP3073, BP3074 and BP3075. ZPMC QC is identified as Mr. Wang Jie. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-345-SMAW-1G (1F)-Repair and WPS-345-SMAW-2G (2F)-Repair, which is used as per Critical Welding Repair Report (CWR) B-CWR-1909. See the attached pictures.

This QA inspector observed ABF personnel performing Magnetic particle Testing (MT) on OBG Segment 13AW Bottom plate temporary attachment areas. The bottom plates are identified as BP3072, BP3073, BP3074 and BP3075. See the attached picture.

This QA inspector observed ZPMC personnel performing Ultrasonic Testing (UT) on OBG Segment 13AE Bottom plate to Bottom plate splice joint. The weld joint is identified as SEG3007AC-001. ZPMC QC is identified as Mr. Geng Wei.

Bay 16

This QA inspector observed ZPMC qualified welding personnel identified as 068494 perform FCAW welding on steel barrier of OBG Component, weld joint identified as W5-SB13-001-017, 018. ZPMC QC is identified as Mr. Ma Qian Li. The welding parameters as measured using QC's calibrated instruments appeared to be in general

## WELDING INSPECTION REPORT

(Continued Page 3 of 4)

compliance with WPS -B-T-2133.

This QA inspector observed ZPMC qualified welding personnel identified as 068765 perform FCAW welding on steel barrier of OBG Component, weld joint identified as W5-SB1E-001-013, 014, 015 and 016. ZPMC QC is identified as Mr. Ma Qian Li. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS -B-T-2132.

This QA inspector observed ZPMC qualified welding personnel identified as 037944 perform FCAW welding on steel barrier of OBG Component, weld joint identified as W5-SB13A-001-017 and 018. ZPMC QC is identified as Mr. Ma Qian Li. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS -B-T-2133.

This QA inspector observed ZPMC qualified welding personnel identified as 066751 perform FCAW welding on steel barrier of OBG Component, weld joint identified as W5-SB13-001-020, 021, 022, 023, 024 and 025. ZPMC QC is identified as Mr. Ma Qian Li. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS -B-T-2132.

Visual Inspection after Blast

#### Segment 11CE

This QA Inspector performed a preliminary random visual inspection on OBG Segment 11CE, after the grit blast of the exterior components of the deck panel, floor beams and corner assemblies of this segment. Areas of visual weld defects that will require welding were taped and will be repaired after the coating is applied. ZPMC QC personnel are aware of these areas and were present during the inspection.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.





#### **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

# WELDING INSPECTION REPORT

(Continued Page 4 of 4)

## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Kumar, Vibin	Quality Assurance Inspector
Reviewed By:	McClendon, Timothy	QA Reviewer